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24 March 2011

Sue Robinson, MSc, BSc
Senior Toxicologist
Golder Associates Inc.
18300 NE Union Hill Road, Suite 200,
Redmond, Washington, USA 98052

Re: Updated Schedule for Libby Asbestos Toxicity Testing

Dear Ms Robinson:

The following letter presents the timeline/schedule for the finalization of the pilot study protocol, conduct of the pilot study, and estimation of development and conduct of the definitive study. OSU understands and appreciates the need to proceed with the study as soon as possible; however, due to the previous delays encountered by other project tasks/studies, we have had to schedule around other meetings and commitments, hence the slight delay in April. Golder/Remedium should understand that this schedule is predicated on the assumption that no problems are encountered going forward. If problems do occur that could delay completion of the tests or completion of the report, Golder/Remedium will be advised immediately.

The proposed schedule has been developed to allow an appropriate amount of time for each task to be completed and approved. We have discussed filter training with Ron Mahoney of EMSL and he believes it is unnecessary to conduct "in-person" training. He believes we will be able to confer on questions and procedures over the phone. Therefore, we have developed the schedule around this plan. Additionally, the ordering and receiving of the test organisms will occur after the final pilot study protocol has been approved and signed by EPA and the study sponsor. This ensures that if any delays occur, we will experience no issues with our animal use permit and/or holding the test organisms in-house for a prolonged period of time (where they may grow larger than desired prior to their use in testing).

The proposed schedule in regards to the definitive study is a best guess. Instead of setting hard dates, we have set appropriate amounts of time for completion of each task. This will enable us to be more flexible if issues arise.

We appreciate the opportunity to work with you. If you have any questions or if you need additional information, please feel free to contact me or Allison Cardwell.

Sincerely,

William A. Stubblefield
Professor

Task	Date	Completed ?
Fish Toxicity Test - Pilot Study		
Receive Study 3A results (includes sample preparation/filtration operating procedures)	23 March 2011	Yes
Confer with Ron Mahoney with sampling/filtering details. Order necessary equipment for sampling/filtering.	By April 5th	
Phone call with Ron Mahoney – step by step procedure training	Week of April 12 – 15th	
Training and Proficiency Demonstration (includes sending digital images EMSL)	Week of April 18 – 22nd	
Submit final protocol to Golder/Remedium for comments (to include **ALL** amendments)	By April 22, 2011	
Receive comments from Golder/Remedium, EPA, BTAG	Week of April 25-29	
Submission of Final Protocol to EPA and BTAG	By May 6	
Order and Receive test organisms for study	ASAP after receipt of signed, approved final protocol	
Trout Pilot Study Initiation	Week of May 21 or slightly earlier, depending on receipt of organisms	
Analysis and Data Evaluation	3 weeks after test completion	
Draft Report	3 weeks after receipt of analytical data	
Final Report	2 weeks after receipt of draft report comments	
Meeting with Doug Fort, Sue Robinson	June?	

Task	Date	Completed ?
Fish Toxicity Test – Definitive Study		
Contracting with OSU	End June/Early July	
Submit Draft Definitive Study Protocol	2 weeks after receipt of executed contract	
Receive Draft Study Protocol comments	Allow 1 week for comments	
Submit Final Definitive Study Protocol	1 week after receipt of comments	
Receive Final Definitive Study Protocol comments	Allow 1 week for comments	
Submit Final Definitive Study Protocol	3 business days after receiving comments	
Receive Signed/Approved Final Protocol	1 week after submission	
Order fertilized eggs for testing	As soon as possible after receiving signed/approved final protocol	
Definitive Study Initiation	Allow up to 30 days from receipt of fertilized eggs to hatching*	
Completion of Definitive Study	42 days after initiation	
Analysis and Data Evaluation	3 weeks after test completion	
Draft Report	3 weeks after receipt of analytical data	
Final Report	2 weeks after receipt of draft report comments	

*The time required for hatching depends upon how old the fertilized eggs are when received and the temperature they have been incubated at. At 10°C, fertilization to hatching in rainbow trout takes about 31 days.